

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
4 August 2005 (04.08.2005)

PCT

(10) International Publication Number  
WO 2005/070712 A3

(51) International Patent Classification:  
B60H 1/32 (2006.01)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:  
PCT/JP2004/019271

(22) International Filing Date:  
16 December 2004 (16.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004-014200 22 January 2004 (22.01.2004) JP

(71) Applicant (for all designated States except US): CAL-SONIC KANSEI CORPORATION [JP/JP]; 24-15, Minamidai 5-chome, Nakano-ku, Tokyo 1648602 (JP).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

Published:

(75) Inventors/Applicants (for US only): NAKAMURA, Kojiro. MARUYAMA, Tomohiro.

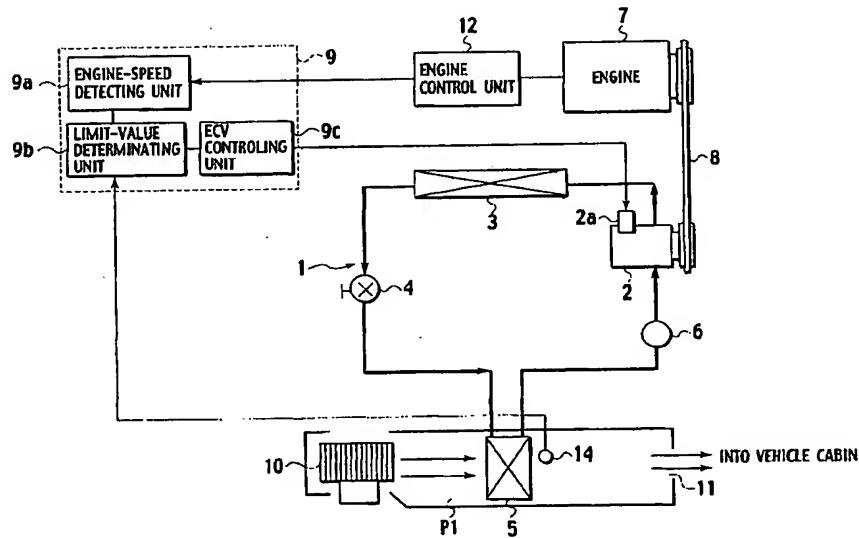
— with international search report

(74) Agents: MIYOSHI, Hidekazu et al.; Toranomon Koto-hira Tower, 2-8, Toranomon 1-chome, Minato-ku, Tokyo 105-0001 (JP).

(88) Date of publication of the international search report:  
2 August 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND DEVICE FOR CONTROLLING REFRIGERATION CYCLE OF AIR CONDITIONING SYSTEM FOR VEHICLE



(57) Abstract: In an, air conditioning system having a variable displacement compressor (2) driven by an engine (7) of a vehicle, method and device for controlling a refrigeration cycle are provided to ensure necessary cooling performance of the system without damaging the traveling performance of the vehicle. In the method, a limit value in the discharge rate of the variable displacement compressor (2) is determined by an engine speed (12) or a variable related to the engine speed. The variable displacement compressor is controlled (9, 2a) on the basis of the limit value.

WO 2005/070712 A3